

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Tatsuya YASUNAGA, et al.

SERIAL NO: New Application

GAU:

FILED: Herewith

EXAMINER:

FOR: RUBBER BONDED BRASS COMPOSITE MATERIAL

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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STATEMENT OF RELEVANCY

Reference AO (JP 2001-131885) on Form PTO-1449:

discussed in the specification

PROBLEM TO BE SOLVED: To produce a steel wire having excellent wet heat adhesiveness, not to mention initial adhesiveness.

SOLUTION: This steel wire subjected to copper alloy plating on the circumferential face comprises $\geq 50\%$ metal copper in copper components contained in a surface layer zone from the surface of plating to 3 nm depth inward in the radial direction.

Reference AP (2001-234371) on Form PTO-1449:

discussed in the specification

PROBLEM TO BE SOLVED: To improve the initial adhesive properties and wet heat adhesive properties between rubber and a steel cord.

SOLUTION: A steel cord with copper alloy plating is subjected to cleaning treatment with an acidic or alkaline aqueous solution such as an aqueous solution of phosphoric acid and an aqueous solution of sodium hydroxide to reduce the residual amount of a lubricant containing a phosphoric compound causing the check of adhesion and used in a wire drawing stage.

Reference AQ (52-102388) on Form PTO-1449:

PURPOSE: A process for adhesion of brass-coated steel wires to rubber with good initial adhesion and smaller dispersion of adhesiveness without decrease of adhesiveness, characterized by heat-treating the brass-coated steel wires under specific conditions.

SOLUTION: Brass-coated steel wires are come into contact with rubber after the wires are heat treated.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
249210US0SERIAL NO.
New Application

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT
Tatsuya YASUNAGA, et al.FILING DATE
Herewith

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO	2001-131885	05/15/01	Japan		x
	AP	2001-234371	08/31/01	Japan		x
	AQ	52-102388	08/27/77	Japan		x
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	<input type="checkbox"/> Additional References sheet(s) attached

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.